

Please amend the application as follows:

IN THE CLAIMS

In accordance with amendment practice pursuant to Rule 1.121(c)(1)(i), please enter the "clean" set of "rewritten claims" as set forth below.

A "marked up" version of the amended claims is attached hereto as Exhibit A pursuant to Rule 1.121(c)(1)(ii).

A1 Sub 301
1. (Amended) An assay platform comprising a substrate and a polymer matrix attached to the substrate, wherein the polymer matrix binds to target molecules through a binding ligand, wherein the polymer matrix comprises a plurality of polymer molecules, wherein at least some of the polymer molecules are covalently attached directly to the substrate, wherein at least some of the polymer molecules are crosslinked to other polymer molecules, wherein at least some of the polymer molecules have at least one binding ligand covalently attached thereto, and wherein the density of the polymer matrix on the substrate is at least $2 \mu\text{g}/\text{cm}^2$.

A2 Sub 301
10. (Amended) The assay platform according to claim 1 wherein the substrate is a Matrix Assisted Laser Desorption Ionization (MALDI) plate.

A3 Sub 301
16. (Amended) The assay platform according to claim 1 wherein the polymer matrix binds to target molecules having a molecular weight of less than 3.5 kDa in an amount of at least 1 nanomole/ cm^2 .

17. (Amended) The assay platform according to claim 1 wherein the polymer matrix binds to target molecules having a molecular weight of 3.5 kDa to 500 kDa in an amount of 0.5 $\mu\text{g}/\text{cm}^2$ to 20 $\mu\text{g}/\text{cm}^2$.

18. (Amended) The assay platform according to claim 1 wherein the polymer matrix binds to target molecules having a molecular weight of 10 kDa to 500 kDa in an amount of 1 $\mu\text{g}/\text{cm}^2$ to 20 $\mu\text{g}/\text{cm}^2$.

19. (Amended) The assay platform according to claim 1 wherein the polymer matrix binds to target molecules having a molecular weight of 10 kDa to 350 kDa in an amount of 2 $\mu\text{g}/\text{cm}^2$ to 20 $\mu\text{g}/\text{cm}^2$.

REMARKS

20. (Amended) The assay platform according to claim 1 wherein the polymer matrix binds to target molecules having a molecular weight of 10 kDa to 350 kDa in an amount of 3 $\mu\text{g}/\text{cm}^2$ to 15 $\mu\text{g}/\text{cm}^2$.

21. (Amended) The assay platform according to claim 1 wherein the polymer matrix binds to target molecules having a molecular weight of 10 kDa to 350 kDa in an amount of 4 $\mu\text{g}/\text{cm}^2$ to 10 $\mu\text{g}/\text{cm}^2$.

22. (Amended) The assay platform according to claim 1 wherein the binding ligand binds to a polypeptide target molecule.

BEST AVAILABLE COPY